

REMARKS

The application has been reviewed in light of the Office Action dated September 3, 2008. Claims 1-6 are pending in this application. By the present Amendment, claims 1-6 have been amended and claims 7-10 have been added. It is submitted that no new matter has been added and no new issues have been raised by the present Amendment.

Claims 3-5 were rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite. In response, the claims have been carefully reviewed and amended to correct these formal matters. Withdrawal of the rejection of claims 3-5 under Section 112, second paragraph, is respectfully requested.

Claims 1-4 and 6 were rejected under 35 U.S.C. §103(a) as allegedly obvious from U.S. Patent 4,500,381 to Nordstrom in view of U.S. Patent 5,772,111 to Kirsch. Claim 5 was rejected under Section 103(a) as allegedly obvious from Nordstrom in view of Kirsch and further in view of U.S. Patent 3,290,205 to Goldstein et al. Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits independent claim 1 is patentable over the cited art for at least the following reasons.

Independent claim a relates to a packaging material of the corrugated cardboard type, comprising a plane paper layer, an auxiliary paper layer arranged below the plane paper layer, with waves presenting an amplitude (a) perpendicular to a plane of propagation of the auxiliary paper layer, and where tops of the waves form a system of substantially parallel waves presenting an amplitude (b) in the plane of propagation of the auxiliary paper layer, a second plane paper layer arranged below said auxiliary paper layer, a second auxiliary paper layer arranged below the second plane paper layer and an optional third plane paper layer arranged below the second auxiliary paper layer, wherein the waves which present an amplitude perpendicular to the direction of propagation of the two auxiliary paper layers have

a phase displacement ϕ provided between the waves, ϕ being in the range of

$$\frac{\pi}{4} - \frac{\pi}{3}$$

Nordstrom, as understood by Applicant, relates to a method and apparatus for making multiple ply paperboard. As shown in Fig. 4 of Nordstrom, single wall corrugated paperboard is formed by gluing fluted web 16 between flat web 20 and bottom web 34. Sections of the single wall corrugated paperboard may then be joined by gluing the sections together using glue 64. As stated in the Office Action, Nordstrom fails to specifically teach the wave tops forming a system of substantially parallel waves presenting an amplitude in the plane of propagation of the auxiliary paper layer or that the waves of the two auxiliary paper layers present an amplitude perpendicular to the direction of propagation of the two auxiliary paper layers, having a phase displacement between the waves of these layers in the range of $\pi/4 - \pi/3$. Kirsch is cited as allegedly disclosing a system of substantially parallel waves.

Kirsch, as understood by Applicant, relates to a container structure. A pattern of wavy flutes provides improved strength and rigidity to the container.

The Office Action indicates that Nordstrom teaches offsetting a pair of the corrugated sheets longitudinally one from the other so that their longitudinal end margins are offset from each other by an amount calculated to provide a splice joint for either a double ply or triple ply paperboard product and that an ordinarily skilled artisan would have recognized using a phase displacement in the range of $\pi/4 - \pi/3$ was a workable option from those teachings. Applicant respectfully disagrees.

Nordstrom indicates that the “two paperboard sheets 74 forming the double ply board are offset longitudinally one from the other so that their longitudinal end margins are offset from each other by an amount calculated to provide the splice joint” (col. 6, lines 11-17, emphasis added). Nordstrom further indicates moving the paper board sheet to the left so that

the end margin of the sheet is offset in relation to the corresponding margin of the next adjacent paperboard sheet to provide a splice joint (col. 6, lines 11-48.) That is, Nordstrom is only concerned with shifting the end margin by an amount to provide the splice joint. Nordstrom provides no teaching or suggestion of shifting the boards such that the waves which present an amplitude perpendicular to the direction of propagation of the two auxiliary paper layers have a phase displacement ϕ provided between the waves, ϕ being in the range of

$$\frac{\pi}{4} - \frac{\pi}{3}$$

A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of the variable might be characterized as routine experimentation (M.P.E.P. 2144.05(II)(B)). As understood by Applicant, there is nothing currently of record that teaches or suggests any desirability of providing a phase displacement between the waves which present an amplitude perpendicular to the direction of propagation of the two auxiliary paper layers as claimed, still less that the phase displacement should be in the range of

$$\frac{\pi}{4} - \frac{\pi}{3}$$

Accordingly, Applicant submits independent claim 1 is patentable over the cited art.

The Office is hereby authorized to charge any additional fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition, and the Commissioner is authorized to charge the

requisite fees to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Entry of this amendment and allowance of this application are respectfully requested.

Respectfully submitted,



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